SRP0615 Series - Shielded Power Inductors

Features
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Flat wire
- RoHS compliant* and halogen free**

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V Q</th>
<th>Q Test Freq. (MHz)</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
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<tbody>
<tr>
<td>SRP0615-R47K</td>
<td>0.47</td>
<td>10</td>
<td>20</td>
<td>25.2</td>
<td>71</td>
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<td>54</td>
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<td>SRP0615-100K</td>
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<td>42</td>
<td>2.52</td>
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<td>102.5</td>
<td>120.0</td>
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</tbody>
</table>

Product Dimensions

Recommended Layout

General Specifications
- Operating Temperature: -40 °C to +125 °C (Temperature rise included)
- Storage Temperature (Component): -40 °C to +125 °C
- Rated Current: Inductance drops 30% at Isat
- Temperature Rise: 40 °C at rated Irms
- Rated Voltage: 50 V
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

Materials
- Core: Metal alloy powder
- Wire: Enamelled copper
- Terminal Finish: Sn
- Packaging: 2000 pcs. per 13-inch reel

How to Order
- Model
- Value Code (see table)

Note: 1. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials
- Core: Metal alloy powder
- Wire: Enamelled copper
- Terminal Finish: Sn
- Packaging: 2000 pcs. per 13-inch reel

Please consult Bourns® Model SRP-A Series Visual Inspection Guide for detailed construction, processing and testing information.

** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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**Soldering Profile**

- **Peak Temperature**: 260 °C max.
- **Max. Peak Temperature -5 °C**: 30 sec. max.
- **Max. Time Above 217 °C**: 60~150 sec. max.

**Temperature Profiles**

- **Temperature Rising Area**: -4.0 °C/Sec. Max.
- **Preheat Area**: 150~200 °C / 60~120 Sec.
- **Reflow Area**: +3.0 °C/Sec. Max.
- **Forced Cooling Area**: -(1.0~5.0) °C/Sec. Max.

**Graph Details**

- **Temperature (°C)**: 0, 50, 100, 150, 200, 250
- **Time (Seconds)**: 0, 50, 100, 150, 200, 250
- **Peak Temperature**: 260 °C
- **217 °C**: 60 Sec. Max.
- **60-150 Sec.**
- **60-120 Sec.**
SRP0615 Series - Shielded Power Inductors

Packaging Specifications

DIMENSIONS: MM (INCHES)

QTY: 2,000 PCS PER REEL

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